



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Peter Brittingham, et al.  
Serial No. : 09/654,949  
Filing Date : September 1, 2000  
For : COMPUTER BASED TEST ITEM GENERATION  
Art Unit : 3714  
Examiner : Ross A. Williams  
Attorney Docket No. 011948-0033-999 (NEW)

**MAIL STOP APPEAL BRIEF - PATENTS**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**AMENDED APPEAL BRIEF**

Dear Sir:

On July 9, 2009, a Notice of Non-compliant Appeal Brief was mailed stating that the appeal brief filed March 4, 2009, does not refer to drawings including reference characters in the summary of claimed subject matter. A review of FIGs. 7-9, 14-15, 21-23, 45-51, 74, and 77, referred to in the summary section of the appeal brief, shows that none of these figures contain reference numerals. Therefore, in response to the outstanding notice, replacement pages 2 and 3 for the appeal brief are submitted here to provide further description for the summary section of the appeal brief indicating where in each figure examples of claimed features are shown. On September 8, 2009, Matthew Johnson spoke on behalf of W. Joseph Melnik, attorney of record, with Examiner Ross Williams, and Mr. Williams indicated that this approach was proper and that an entire Appeal Brief did not need to be resubmitted.

Date: September 9, 2009

Respectfully Submitted,

By: *Douglas H. Pearson*

Douglas H. Pearson  
Registration No. 47,851  
W. Joseph Melnik  
Registration No. 48,741

Intellectual Property Group  
51 Louisiana Avenue, N.W.  
Washington, D.C. 20001-2113  
(202) 879-3939 Telephone  
(202) 626-1700 Facsimile

(1) Real Party in Interest:

The real party in interest is assignee Educational Testing Service.

(2) Related Appeals and Interferences:

No other appeals or interferences exist which relate to the present application or appeal.

(3) Status of Claims:

Claims 1-5, 13-17, and 19-20 are pending, finally rejected, and appealed herein. Claims 6-12 and 18 were canceled.

(4) Status of Amendments:

No amendments are outstanding.

(5) Summary of Claimed Subject Matter:

As an initial matter, it is noted that according to the Patent Office, the concise explanations under this section are for Board convenience, and do not supersede what the claims actually state, 69 Fed. Reg. 155 (August 2004), see page 49976. Accordingly, nothing in this Section should be construed as an estoppel that limits the actual claim language.

As described in the abstract, for example, the invention generally pertains to creating test questions or "items" by generating variants from a test item model. More specifically, the invention identifies test item elements to be converted to variables ("variabilized"), indicates the range of values those variables can assume, and then generates test item variants with a simultaneous constraint solver. Generated test items can be stored and forwarded for use in a test. Test item models (which may include initial test items, see specification page 15, lines 6-8, FIG. 7 left window, NEWMC\$R.DOC, where an test item is described by a number of fields including text in a "stem" box) can be also stored for later use in further test item generation.

Claim 1 teaches a computerized method for creating test item models and generating test item variants. Obtaining a test item is described at page 15, line 6, FIG. 7 (left window, NEWMC\$R.DOC), where a test item is described by a number of fields including text in a "stem" box. Creating a test item model by identifying elements of the test item to be variabilized is described at page 17, lines 19-23, FIG. 8 (left window, NEWMC\$R.DOC), where elements are identified by typing variable identifiers in place of the original test element, such as replacing John with SMaleName in the "stem" box. Variabilizing the elements by creating and defining the variables is described at page 16 lines 2-11, FIG. 22, where a variable is created in the pop-up window labeled "Create or Change Variable." Generating a test item variant of the test item is described at page 29, line 21 to page 31, line 3, FIGs. 45-46, where a number of variants to be generated is selected in the right pane of FIG. 45 ("2"), and the generated variants are listed in the large box in the right pane of FIG. 46 (NEWMC\$R1.doc and NEWMC\$R2.doc) by assigning values to the variables using a simultaneous constraint solver. The simultaneous constraint solver

resolves a plurality of constraints pertaining to the variables as described at page 41, lines 1-3, and example constraints are detailed in the “Create or Change Variable” pop-up window in each of FIGs. 14-15 and 21-23.

Claim 5 teaches a computerized method for generating test item variants. Identifying elements of a test item or a test item model to be variabilized is described at page 17, lines 19-23, FIG. 8 (left window, NEWMC\$R.DOC), where elements are identified by typing variable identifiers in place of the original test element, such as replacing John with SMaleName in the “stem” box. Variabilizing the identified elements by defining the variables is described at page 16, lines 2-11, FIG. 22, where a variable is created in the pop-up window labeled “Create or Change Variable.” Specifying constraints for the variables is described at page 3, lines 16-17 and page 24, line 20 to page 27, line 12, where example constraints are detailed in the “Create or Change Variable” pop-up window in each of FIGs. 14-15 and 21-23. Using a simultaneous constraint solver to determine values for the variables based on the constraints is described at page 41, lines 1-3, and generating a test item variant with the determined values is described at page 3, lines 18-20 and page 29, line 21 to page 31, line 3, FIGs. 45-46, where a number of variants to be generated is selected in the right pane of FIG. 45 (“2”); and the generated variants are listed in the large box in the right pane of FIG. 46, NEWMC\$R1.doc and NEWMC\$R2.doc.

Claim 13 teaches a computerized method for generating test item variants from test item models. Retrievably storing test item models is described at page 4, lines 2-3, FIG. 4, where a test item model family is being saved using the “Save new family as” window. Selecting a test item model is described at page 37, lines 10-14, and simultaneously solving test item model constraints pertaining to variables of the selected test item model is described at page 3, lines 18-19 and page 24, line 20 to page 27, line 12, where example constraints are detailed in the “Create or Change Variable” pop-up window in each of FIGs. 14-15 and 21-23. Generating test item solutions based on the selected test item model is described at page 41, lines 1-3, FIG. 77, where generated variants are listed in the “Variants” box in the right pane and details of the generated variable are listed in the fields on the left pane. Displaying, accepting and retrievably storing valid test item solutions is described at page 3, line 22 to page 4, line 2.

(6) Grounds of Rejection to be Reviewed on Appeal:

(a) *Whether claims 1-5, 13-16, and 19-20 have been properly rejected under 35 U.S.C. § 103(a) as unpatentable over Sweitzer and Swanson.*

(b) *Whether claim 17 has been properly rejected under 35 U.S.C. § 103(a) as unpatentable over Sweitzer and Swanson.*